

ABSTRACT OF THE DISCLOSURE

[1040] According to some embodiments, a memory device having multiple memory units includes one or more redundant memory units. Upon detection of an electrical characteristic indicating a failing memory unit, one of the redundant memory units is used to replace the failing memory unit. Detection of failing memory units may be via current, voltage and/or resistance monitoring. If the electrical characteristic monitored exceeds a predetermined threshold, a memory unit is considered failing. The failing memory unit is removed from further use. The redundant memory unit is programmed to be accessible at the memory address of the removed memory unit. Replacement occurs automatically (that is, without user intervention).